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**(54) BUILT-UP WELDING METHOD FOR VALVE SEAT OF CYLINDER HEAD**

angle formed by the powder feeding nozzle 4 with the laser beam 3 is set to 5-20°.

(57) Abstract:

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**PURPOSE:** To stabilize powder feeding density and to eliminate deviation between a powder feeding position and an irradiation position of a laser beam on the surface of a seat.

**CONSTITUTION:** The seat surface 2a of a valve seat 2 is irradiated with a laser beam 3 while a powder 5 is supplied from a powder feeding nozzle 4 to the surface. The valve seat 2 is rotatably moved in the circumferential direction against the laser beam 3 to form a build-up layer 6 on the entire circumference of the seat surface 2a of the valve seat 2. The angle formed by the normal line (a) of a cross-sectionally circular-arc seat surface 2a with the powder feeding nozzle 4 is set to 0-20°, and the

